

## THE AMENDMENTS

### In the Specification:

Please revise Paragraph [0032] as follows:

[0032] In the first aspect of this invention, microcups formed on a conductor substrate such as ITO/PET film, are filled with a removable temporary filler material. Microcups used for this invention may be circular, symmetrical or asymmetrical polygonal shapes with an opening area ranging from about ~~4 microns<sup>2</sup>~~ microns<sup>2</sup> to about ~~5 x 10<sup>5</sup> microns<sup>2</sup>~~ 5 x 10<sup>5</sup> microns<sup>2</sup>, preferably from about ~~10<sup>3</sup> microns<sup>2</sup>~~ 10<sup>3</sup> microns<sup>2</sup> to about ~~5 x 10<sup>4</sup> microns<sup>2</sup>~~ 5 x 10<sup>4</sup> microns<sup>2</sup>. The depth may be in the range of about 5 to about 100 microns, preferably from about 10 to about 50 microns, and preferably a depth to width ratio in the range of about 0.01 to 5, most preferably from about 0.1 to 2.5.

Please revise Paragraph [0041] as follows:

[0041] In over-coating of the microcups, an excess of photoresist is usually applied in a sufficient amount to ensure that the microcups are fully covered by the resist. Preferably, application of the photoresist over the filled microcups is made such that the thickness of the resist layer above the top surface of the microcups is controlled to a range of about 0.1 to 5 microns, more preferably from about 0.5 to 3 microns. Precision coating of the resist may be performed using known procedures and devices such as a Myrad bar, gravure, doctor blade, slot coating or slit coating, or related devices. Excess resist over the microcups may be removed using a number of methods known in the art, including scraping with a wiper blade or similar devices. The photoresist is then baked in the oven by using standard procedures as suggested by photoresist suppliers. Subsequent imagewise exposure of the photoresist may be performed using a UV light source such as Loctite Zeta 7410 exposure unit equipped with a metal halide lamp with an intensity of about ~~6 mW/cm<sup>2</sup>~~ mW/cm<sup>2</sup> at 365 nm, or ORIEL 87000 Series UV System equipped with 500 watts Model 68810 Mercury ARC Lamp with an intensity of about ~~5 mW/cm<sup>2</sup>~~ mW/cm<sup>2</sup> at 365 nm. Exposure is performed for a period of time sufficient to show image discrimination with good contrast after the photoresist is developed by a developer.

Please revise Paragraph [0056] as follows:

[0056] A primer solution comprising of 5 parts of Ebecryl 830, 2.6 parts of SR-399 (Sartomer), 1.8 parts of Ebecryl 1701, 1 part of PMMA (Mw = 350,000, Aldrich), 0.5 parts

of Irgacure 500, and 40 parts of methyl ethyl ketone (MEK) was coated onto a 2 mil 60 ohm/sq. ITO/PET film (Sheldahl Inc., MN) using a #3 Myrad bar, dried, and UV cured by using the Zeta 7410 (5 ~~w/cm<sup>2</sup>~~ w/cm<sup>2</sup>, Loctite) exposure unit for 15 minutes in air. The microcup formulation prepared in Example 1 was coated onto the treated ITO/PET film with a targeted thickness of about 50  $\mu$ m, embossed with a Ni-Co male mold having a 60 (width)  $\mu$ m x 60 (length)  $\mu$ m repetitive protrusion pattern with 10  $\mu$ m wide partition lines and UV cured from the PET side for 20 seconds, removed from the mold with a 2" peeling bar at a speed of about 4-5 ft/min. Well-defined ~~micro-cups~~ microcups with depth ranging from 10 to 50  $\mu$ m were prepared by using male molds having corresponding protrusion heights.

Please revise Paragraph [0058] as follows:

[0058] 3 ~~gm/m<sup>2</sup>~~ Gm/m<sup>2</sup> (dried) of the positively working photoresist SJR-5740 (Shibley, MA) was coated on a removable clear support PET-4851 (Saint-Gobain, MA) with a Myrad bar. Onto the photoresist, 3 ~~gm/m<sup>2</sup>~~ gm/m<sup>2</sup> (dried) of an alkali-developable adhesive composition comprising of 9 parts of Nacor 72-8685 (50% solid, National Starch) and 91 parts of 20% aqueous solution of Carboset 515 (BF Goodrich) was then coated with a Myrad bar. The three layer adhesive/resist/support was then laminated at ~~40-60~~ 40°C onto a 10 microns deep, empty microcup array prepared according to Example 2. The PET support was removed, and the photoresist laminated microcup array was imagewise exposed through a photomask using the Zeta 7410 (5 ~~w/cm<sup>2</sup>~~ w/cm<sup>2</sup>, Loctite) exposure unit for about 1 ~~minutes~~ minute and then developed by Developer-453 (Shibley) for 2 minutes. Deterioration of resist integrity in the non-exposed regions such as ~~pin-holes~~ pinholes and delamination of resist from the microcups was observed after the development step.